

IN THE CLAIMS:

Please cancel claims 50-53.

Please amend claims 22, 23, 28, 29, 34, 35, 40-49, 58 and 59.

1-21. (Canceled)

22. (Currently Amended) A semiconductor device comprising:

a substrate;

a light shielding conductive layer formed over said substrate, said light shielding conductive layer being electrically connected to a fixed potential;

at least one pixel electrode formed over said substrate;

at least one thin film transistor formed over said substrate for switching said pixel electrode, said thin film transistor comprising:

a semiconductor layer having at least source, drain and channel regions and a capacitor forming portion, wherein at least said channel region is overlapped with said light shielding conductive layer;

a first insulating film formed on said channel region; and

a gate electrode formed over said channel region with said first insulating film interposed ~~therebetween~~ therebetween,

a storage capacitor electrically connected to said thin film transistor, said storage capacitor comprising:

said capacitor forming portion of the semiconductor layer;

a capacitor forming electrode formed over said capacitor forming portion; and

a second insulating film interposed between said capacitor forming portion and said capacitor forming electrode,

wherein said second insulating film is thicker than said third insulating film.

23. (Currently Amended) A semiconductor device comprising:

a substrate;

a light shielding conductive layer formed over said substrate, said light shielding conductive layer being electrically connected to a fixed potential;

a first insulating film formed on said light shielding conductive layer;

a semiconductor layer formed on said first insulating film, said semiconductor layer having at least a pair of impurity regions and a channel region extending therebetween and a capacitor forming portion, wherein at least said channel region is overlapped with said light shielding conductive layer;

a second insulating film formed on said channel region;

a third insulating film formed on said capacitor forming portion of the semiconductor layer;

a gate electrode formed over said channel region with said second insulating film interposed therebetween;

a capacitor forming electrode formed over said capacitor forming portion of the semiconductor layer with said third insulating film to form a storage capacitor, wherein said second insulating film is thicker than said third insulating film;

a fourth insulating film formed over said storage capacitor and said gate electrode;

an electrode formed on said fourth insulating film;

a fifth insulating film formed over said fourth insulating film and said electrode;

a black mask formed on said fifth insulating film;

a sixth insulating film formed over said fifth insulating film and said black mask; and

a pixel electrode formed on said sixth insulating film and electrically connected to one of said pair of impurity regions.

24-27 (Canceled)

28. (Currently Amended) A projector comprising:

a light source; and

a liquid crystal panel for modulating light from said light source, said liquid crystal panel comprising:

a substrate;

a light shielding conductive layer formed over said substrate, said light shielding conductive layer being electrically connected to a fixed potential;

at least one pixel electrode formed over said substrate;

at least one thin film transistor formed over said substrate for switching said pixel electrode, said thin film transistor comprising:

a semiconductor layer having at least source, drain and channel regions and a capacitor forming portion, wherein at least said channel region is overlapped with said light shielding conductive layer;

a first insulating film formed on said channel region; and

a gate electrode formed over said channel region with said first insulating film interposed ~~therebetween~~ therebetween,

a storage capacitor electrically connected to said thin film transistor, said storage capacitor comprising:

said capacitor forming portion of the semiconductor layer;

a capacitor forming electrode formed over said capacitor forming portion; and

a second insulating film interposed between said capacitor forming portion and said capacitor forming electrode,

wherein said second insulating film is thicker than said third insulating film.

29. (Currently Amended) A projector comprising:

a light source; and

a liquid crystal panel for modulating light from said light source, said liquid crystal panel comprising:

a substrate;

a light shielding conductive layer formed over said substrate, said light shielding conductive layer being electrically connected to a fixed potential;

a first insulating film formed on said light shielding conductive layer;

a semiconductor layer formed on said first insulating film, said semiconductor layer having at least a pair of impurity regions and a channel region extending therebetween and a capacitor forming portion, wherein at least said channel region is overlapped with said light shielding conductive layer;

a second insulating film formed on said channel region;

a third insulating film formed on said capacitor forming portion of the semiconductor layer;

a gate electrode formed over said channel region with said second insulating film interposed therebetween;

a capacitor forming electrode formed over said capacitor forming portion of the semiconductor layer with said third insulating film to form a storage capacitor, wherein said second insulating film is thicker than said third insulating film;

a fourth insulating film formed over said storage capacitor and said gate electrode;

an electrode formed on said fourth insulating film;

a fifth insulating film formed over said fourth insulating film and said electrode;

a black mask formed on said fifth insulating film;

a sixth insulating film formed over said fifth insulating film and said black mask; and
a pixel electrode formed on said sixth insulating film and electrically connected to one of
said pair of impurity regions.

30-33. (Canceled)

34. (Currently Amended) The semiconductor device according to claim ~~34~~ 22, wherein a
film thickness of said first insulating film is between 50 to 200 nm and a film thickness of said
second insulating film is between 5 to 50 nm.

35. (Currently Amended) The semiconductor device according to Claim ~~32~~ 23, wherein a
film thickness of said second insulating film is between 50 to 200 nm and a film thickness of said
third insulating film is between 5 to 50 nm.

36-39. (Canceled)

40. (Currently Amended) The projector according to claim ~~37~~ 28, wherein a film thickness of
said first insulating film is between 50 to 200 nm and a film thickness of said second insulating
film is between 5 to 50 nm.

41. (Currently Amended) The projector according to Claim ~~38~~ 29, wherein a film thickness
of said second insulating film is between 50 to 200 nm and a film thickness of said third
insulating film is between 5 to 50 nm.

42. (Currently Amended) The semiconductor device according to Claim ~~34~~ 22, wherein said
light shielding conductive layer comprises a material selected from the group consisting of
phosphorous doped silicon, boron doped silicon, tungsten, tantalum, molybdenum, titanium,
metal silicide and metal nitrate.

43. (Currently Amended) The semiconductor device according to Claim ~~32~~ 23, wherein said
light shielding conductive layer comprises a material selected from the group consisting of

phosphorous doped silicon, boron doped silicon, tungsten, tantalum, molybdenum, titanium, metal silicide and metal nitrate.

44. (Currently Amended) The projector according to Claim ~~37~~ 28, wherein said light shielding conductive layer comprises a material selected from the group consisting of phosphorous doped silicon, boron doped silicon, tungsten, tantalum, molybdenum, titanium, metal silicide and metal nitrate.

45. (Currently Amended) The projector according to Claim ~~38~~ 29, wherein said light shielding conductive layer comprises a material selected from the group consisting of phosphorous doped silicon, boron doped silicon, tungsten, tantalum, molybdenum, titanium, metal silicide and metal nitrate.

46. (Currently Amended) The semiconductor device according to Claim ~~34~~ 22, wherein said light shielding conductive layer is floating.

47. (Currently Amended) The semiconductor device according to Claim ~~32~~ 23, wherein said light shielding conductive layer is floating.

48. (Currently Amended) The projector according to Claim ~~37~~ 28, wherein said light shielding conductive layer is floating.

49. (Currently Amended) The projector according to Claim ~~38~~ 29, wherein said light shielding conductive layer is floating.

50-57. (Canceled)

58. (Currently Amended) An electronic device having the semiconductor device of claim ~~34~~ 22, wherein said electronic device is selected from the group consisting of a portable telephone, a video camera, a mobile computer, a goggle type display, a personal computer, an electronic game equipment, an image reproduction device, and a digital camera.

59. (Currently Amended) An electronic device having the semiconductor device of claim ~~32~~

23, wherein said electronic device is selected from the group consisting of a portable telephone, a video camera, a mobile computer, a goggle type display, a personal computer, an electronic game equipment, an image reproduction device, and a digital camera.